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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,542	01/23/2002	Mark R. Wilkinson	MARLO-101 (24625.01)	8854
26418	7590	07/06/2004	EXAMINER PEAVEY, ENOCH E	
REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650			ART UNIT 3676	

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,542

Applicant(s)

WILKINSON, MARK R.

Examiner

Enoch E Peavey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 4,10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

I. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A) Claims 1, 8, 9, 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Keating, US No. 1,211,166 ("Keating").

- i. Keating discloses a shaft sealing system comprising a substantially rigid cylindrical bearing (3) dimensioned to fit into the seal cavity (Fig.1).
- ii. The bearing (3) has an outer surface closely dimensioned to fit into the seal cavity (Fig. 1) with an inner bore closely dimensioned along the full length of the bearing to fit over the shaft (2) at one end of the seal cavity to provide a bearing surface for the shaft (2).
- iii. There is at least one packing ring (12) disposed on the motor side of the rigid bearing (3) in the seal cavity (Fig. 1).
- iv. The rotary device (2) is a rotary pump (page 1, line 16).
- v. The bearing member (3) is position at the output end of the seal cavity (i.e. near impeller).
- vi. The at least one packing ring is a compressible packing ring (Fig. 1).

B) Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Zaplac, US No. 5,979,483 ("Zaplac").

i. Zaplac discloses a shaft sealing system comprising a substantially rigid cylindrical bearing (6) dimensioned to fit into the seal cavity (Fig.1).

ii. The bearing 6) has an outer surface closely dimensioned to fit into the seal cavity (Fig. 1) with an inner bore closely dimensioned along the full length of the bearing to fit over the shaft (32) at one end of the seal cavity to provide a bearing surface for the shaft (3).

iii. The outer surface of the bearing includes a groove with an o-ring (11) disposed therein.

Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keating in view of Rinne, US No. 5,538,256.

i. Keating discloses substantially the same seal as applicant except for the seal being made of a non-ferrous metal. Rinne discloses using such a material (Col. 6, lines 64-67) in a seal in order to reduce friction in the sealing assembly.

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ii. It would have been obvious to one of ordinary skill in the art at the time of applicants invention to modify Keating as taught by Rinne in order to reduce the amount of friction in the seal assembly.

B) Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keating in view of Zapalac, US No. 5,979,483.

i. Keating discloses substantially the same seal as applicant except for the outer surface of the cylindrical body including a groove with an o-ring disposed therein. Zapalac discloses using such an arrangement (Col. 6, lines 64-67) in order to prevent leakage along the surface of the cylindrical body.

ii. It would have been obvious to one of ordinary skill in the art at the time of applicants invention to modify Keating as taught by Zapalac in order to further prevent leakage along the surface of the cylindrical body.

C) Claims 5, 6, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keating in view of Tuttle, US Patent No. 4,500,096 ("Tuttle").

i. Keating discloses substantially the same seal as applicant except for the bearing being split along a center-line, wherein corresponding holes are formed in each side of the split seal and alignment pins being positioned in the alignment holes.

ii. Tuttle discloses such an arrangement (FIG. 4) in order to facilitate installation of the bearing (FIG. 3).

iii. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Keating as taught by Tuttle in order to facilitate installation of the bearing.

D. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keating.

Keating discloses the claimed invention except for the seal being made of thermoplastic material, etc. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the bearing of thermoplastic, etc., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Allowable Subject Matter

III. Claims 4, 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

IV. Examiner acknowledges the declaration squaring being the Dziver reference, the Dziver reference has been removed as a basis for rejection. A new action on the merits appears above.

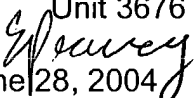
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IV. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977.

The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 305 3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

Enoch E Peavey
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June 28, 2004